



# A Conversation with Dr. Peter L. Levin, Senior Advisor to the Secretary and Chief Technology Officer, U.S. Department of Veterans Affairs

*The U.S. Department of Veterans Affairs may be the second largest federal agency, but it runs the largest medical system in the United States, providing care to about six million veterans and their families who depend on it. This is no small feat considering the demands placed on the system. To meet these demands head-on involves leveraging innovation and advances in technology.*

*How is VA identifying new technologies and promoting innovation? What is the Blue Button Initiative and how is VA using open source technology to meet its mission? Dr. Peter L. Levin, Senior Advisor to the Secretary and Chief Technology Officer, U.S. Department of Veterans Affairs, joined me on The Business of Government Hour to explore these questions and more. The following provides an edited excerpt from our interview. – Michael J. Keegan*

## **On the Vital Purpose of the Department of Veterans Affairs**

We seek to deliver the best possible health care to veterans. Along with the delivery of medical services, we provide veterans with other benefits and necessary services; we also provide interment with honor for veterans. [In sum,] we run the nation's largest hospital system, deliver benefits to three million veterans, and provide them with interment with honor.

We do this on a budget of about \$135 billion with well over 300,000 employees. I think if you included our contractors we would be up to 330,000 employees as the second largest government agency, the largest civilian agency. The way I like to explain it is about one in every 10 federal employees works for the VA—either in benefits administration, processing claims, in the hospitals providing some kind of clinical service, or working in the National Cemetery Administration.

## **On Being VA's First Chief Technology Officer**

It's the best job I've ever had. Beyond the privilege of being a presidential appointee, beyond the opportunity of working with people like Eric Shinseki, Scott Gould, John Gingrich, and Roger Baker literally on a day-to-day basis; beyond the



moral mission—taking care of the people who take care of us—it's just tremendous fun and we're making a difference.

The CTO role is about exploring the boundaries of new technology. It's about exploring the boundaries of new problems, problems that some folks say, well, you just have to live with that. You just have to suffer underneath it or you just have to kind of ignore it and hope it goes away. I get to say, well, why is it that we don't have an automated claims system? What about veterans getting their electronic medical records? Why is it that we don't have a suicide prevention chat line for the folks that don't feel comfortable or don't want to call the agency? We, then, start walking through those questions.

I get to ask the hard questions. I get to ask the risky questions. I get to fail in ways that sometimes other folks wouldn't feel comfortable with or frankly wouldn't feel empowered. I'm using this opportunity to create value inside the



department. I'm unencumbered in terms of living inside the narrow constraints of the old way of doing business. There's a sign on my door: it says, "all unauthorized persons will be authorized." My first answer is yes, and then we figure out how to make it happen. This is a direct instruction from Secretary Shinseki.

The other half of my job is serving a traditional senior advisor role—confidential actions and personnel issues—making sure that the boss is well prepped for whatever meeting that he has, creating the frame or the ambit for those discussions; it's sort of like a glorified speech writer. That's the fun part of my job.

### On the Relationship between the CTO and the CIO

Roger Baker is our rock star CIO. He's arguably the most effective CIO in the federal government today. Why is that? Well, first of all he brings extraordinary operational expertise. My job in contrast is really to serve as a complement to that role. I consider myself as an enabler to the kinds of things that [Roger] needs to get done; bandwidth extension to put it in rather un-prosaic terms. There are just some things that he can't get to. As smart as he is, as capable as he is, it's my job to step out a little farther on the vanguard of what is out there, what is possible, and sort of negotiate that process with this 7,000-person IT organization.

### On the Challenges facing VA's Chief Technologists

My number one challenge is getting folks away from a mindset of "it won't work" and "it can't be done" to "how

can it work" and "why we should try [to make it work]." Here is my experience. You have some folks in government service who approach it the way that I would approach any job. They come in saying, heck yeah we are going to do that and, heck yeah we are going to try that. What they are waiting for is the example I use of a sommelier. I have just described my job to you in a sentence; my job is to uncork that enthusiasm, uncork that risk-taking, uncork that energy, and push people into doing things that they otherwise wouldn't have necessarily tried because they didn't know that they had the political air cover, the professional air cover, or frankly the emotional air cover. I don't care if you fail; it's about imbuing a sense of urgency.

So my biggest challenge is to empower folks and say please try. Then, I want a specific date when I'm going to know whether this works or not. I want to know how many dollars you need. I want to know who is working on it with you. I want to know the performance metrics: How many people are going to be served? How many jobs are going to be created? How many records are going to be transferred? I am matching empowerment to accountability. In the end, it's about going from empowerment to performance, empowerment to accountability, and bridging that gap.

### On Enhancing Mental Health Services at VA

It's not widely known, but it is true that the area of mental health services was the main reason why I came to VA. I wanted to work on enhancing mental health services generally and suicide prevention specifically. I think that we



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— Dr. Peter L. Levin



don’t understand it enough; it’s especially stigmatized in this population. Now suicide is an endemic problem in the U.S.; it’s not particular to veterans, but when veterans have this problem it’s something that we can do something about as long as they are in our system, as long as we can touch them, as long as we know who they are. They have to identify themselves.

I thought we could do better. The project we pursued was actually spearheaded by Dr. Jan Kemp and Dr. Sonja Batten, two people whom I consider some of my closest collaborators at VA. For those in need, who are not comfortable using the phone option to access assistance, perhaps they’re worried about the phone number being traced. They’re not comfortable because they don’t like to speak, but they’re perfectly happy to chat online. Jan had this idea to create a chat service. Even as recently as three years ago, this was kind of on the edge. We had this capability and the technology was available; it’s not very expensive and it’s highly secure. However, at the time, Jan was being blocked by the bureaucracy. This was my first project at VA. We created an Internet-based outreach service for suicide prevention as an alternative channel. I can tell you the day that we went live; it was July 3, 2009 and we turned on that Internet chat service; fast-forward to today, we have over 6,000 interventions; I’m not talking about just the chats. I’m talking about where we have an intervention, where we handed it off, and where we did something proactive to help that individual in distress.

In my faith tradition, if you save one you have saved the world. I don’t know that all of them necessarily were that close to the edge. Jan wouldn’t take credit and I won’t either, but you know it’s more than one.

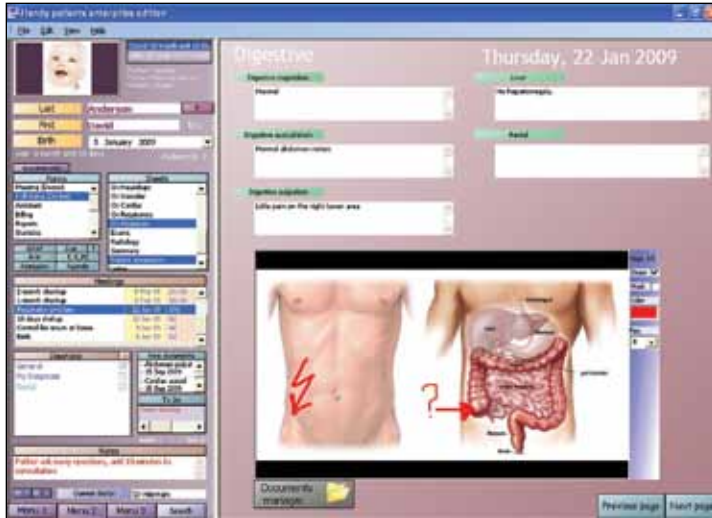
## On Launching the Successful Blue Button Initiative

The Blue Button was born at a meeting of the Markle Foundation in January of 2010. I wasn’t even supposed to be at that meeting; I was a last-minute substitution. I’ve never been to the Markle Foundation; I know them by their

unbelievably good reputation. I’m still very new to health informatics. I was sitting around a table with a who’s who. We start talking about how do we make health records available to people? The Blue Button enables users of personal health records to download their personal health information as an ASCII text file. To this day we still don’t remember two things. We don’t remember who said just make it an ASCII file and we don’t remember who said call it a blue button. The idea of creating a very simple ASCII file was something that I had been thinking about for a while.

I report to the secretary about the meeting explaining to him why we should pursue it. It ties so nicely to the President’s initiative of the Virtual Lifetime Electronic Record (VLER). The secretary said, okay, Peter; that’s good [do it] and by the way [there’s] zero budget. Talk people into doing this for you with my blessing. He asked how many people do you think you could get? I wasn’t

The screenshot shows the Blue Button website interface. At the top, it says "UNITED STATES DEPARTMENT OF VETERANS AFFAIRS". Below that, there's a navigation bar with links like "Home", "Veteran Services", "Business", "About VA", "Media Room", "Locations", "Contact Us", and "Blue Button". The main content area features a large heading "Blue Button Download My Data" with a download icon. Below this, there's a section titled "Need to Know: Update for Blue Button Partners" which discusses updates to the service. To the right, there's a "Blue Button Partners" section. At the bottom, there's a section titled "One Million Blue Button Users - Veterans Talk to Markle Foundation" and another titled "What does the President think about the Blue Button?".



View of an Electronic Health Record

expecting that question. I pulled 25,000 out of the sky. It sounded like an achievable number. We reached 25,000 in six weeks. In fact, we had 25,000 before we formally launched the program at the Health 2.0 conference a few years ago. It was just amazing. We grew so quickly because of the enormous overarching need for people to get their health information; they were willing to take a cruddy ASCII file that was incomplete just to be able to pull something down and say that they had at least that information. They could edit it any way they wanted. They could augment it any way they wanted.

Fast-forward two years, the Blue Button had a new release; I think our 27th or 28th data chapter. We're reaching into the VistA system and pulling out immunization records, medications, and allergies. We've expanded the concept beyond VA. Using our presidential innovation fellows, we have launched Blue Button for America.

Two things are happening here. First, we are going to create a complete, comprehensive, clinically valid electronic health record for veterans pretty soon. The second thing that we're going to do, in close cooperation with Farzad Mostashari, the director in the Office of the National Coordinator for Health Information Technology (ONC), is make the tool available to everybody. Aetna, UnitedHealthcare, Blue Cross, and Kaiser signed on to our health informatics initiative. In the end, the more people that know about it, the more people that get value from it, the more people are going to demand it. There are a thousand things that we can start building around this core asset. It's something we're enormously proud of. We have over a million users today.

## On Embracing Open Source Technology

On my first day of work Roger [Baker] and I were sitting in the office discussing how to modernize VA's electronic health records. VA has arguably the best electronic medical record system in the country—its Veterans Health Information Systems and Technology Architecture, or VistA system. It consists of nearly 160 integrated software modules for clinical care, financial functions, and infrastructure. However, the system is 15 years old and based on a tightly coupled, proprietary, customized code that's very difficult to maintain. We've literally pulled people out of retirement for fixes. Everything about the system, however, is already in the public domain. How do we start bringing things back in from the private sector from the folks that are doing things with VistA that we can't do ourselves? How do you solve this problem? Well, fast-forward to 2011 and the Open Source Electronic Health Record Agent (OSEHRA) project began to provide a common code repository for VistA software.

Under OSEHRA, we are moving VistA from this closed, proprietary, and integrated platform to one that is openly architected, standards-based, and modular. We're opening the aperture and making it easier for us to maintain, scale, fix and extend the system. I could walk you through the detailed operational, analytical, even mathematical description of why it is that when you have open source software you are actually more secure and your total cost of ownership is actually lower. I'll tell you why we do open source: because we are more secure and because it is cheaper in the long run.

## On Moving Innovation Forward

I've worked in the semi-conductor world, in applied mathematics, on the theoretical side, and in cybersecurity. Given my background, I have a pretty broad understanding of the problems that we encounter today as we hit an inflection in information technology. When somebody brings me a new opportunity or a problem, I try to fit it into a framework. I try to say, okay, is this a device issue, which becomes a hardware issue, which becomes a qualification issue; or, is this a data liquidity issue, which becomes an access issue, which becomes a quality of service issue? I can walk you through maybe six or seven of those opportunities where I have this framework that I have been able to assemble and accumulate over 30 years now. I also like to feed it back looking at the [implications to] cost, quality, access, and the satisfaction of our veterans and service providers. I can map practically any problem you throw at me somewhere in that framework and connect it to things that either I know are going on at the VA or in the private sector. It's been a huge benefit to me and I'd like to think that it's been one of the secrets—one of the ways that we have been able to move the ball forward a little bit.



## On Using Social Media

We use social media to communicate and engage our stakeholders; we use it to get ideas from our employees. One of the first projects that I did three years ago was to ask our employees how to solve the claims backlog problem using social media. Nobody had actually asked them before. It is an example of how we're really trying to empower our employees.

If you look at our Facebook account, we went from zero, with absolutely no Facebook presence, to hero in the course of a year with hundreds of thousands of subscribers.

Here is my favorite story about our Facebook success. There was this fellow whose complaint seemed like something I could personally do something about. I pull him off the Facebook page and asked him what was really going on here. The fellow's name is Randy Watson. Randy and I have become good friends; Randy was one of the first users of Blue Button. I had him test it. When I want to know what a veteran really wants, I ask Randy. ■

To learn more about the U.S. Department of Veterans Affairs, go to [www.va.gov](http://www.va.gov).



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